

## Claims

[c1] What is claimed is:

- 1.A method for examining a monitor circuit, the method comprising:
  - (a) providing a computer system having at least a specific component capable of generating an input signal;
  - (b) monitoring the input signal generated by the specific component of the computer system and generating a corresponding signal for comparing with a predetermined signal;
  - (c) generating a compare signal with the monitor circuit according to the comparison resulted in step (b) and outputting a control signal for adjusting the operation of the specific component;
  - (d) generating a first examining signal of the monitor circuit and generating a first corresponding signal for comparing with the predetermined signal;
  - (e) generating a first compare signal according to the comparison result of step (d) and outputting a first input signal;
  - (f) monitoring the first input signal with the monitor circuit and generating a second examining signal; and
  - (g) comparing the first examining signal and the second

examining signal and determining if the monitor circuit is functioning normally.

- [c2] 2.The method of claim 1, wherein the input signal is a voltage signal.
- [c3] 3.The method of claim 1, wherein the input signal is a temperature signal.
- [c4] 4.The method of claim 1, wherein the input signal is a fan speed signal.
- [c5] 5.The method of claim 1 further comprising:
  - (h) inputting the output signal to a multiplexer.
- [c6] 6.A monitor circuit comprising:
  - a first detection module for detecting an input signal and for generating a first examining signal according to the input signal;
  - a second detection module electrically connected to the first detection module for generating an output signal according to the first examining signal; and
  - a control unit electrically connected to the first and the second detection modules selectively for controlling the second detection module to generate the output signal according to the first examining signal, for controlling the first detection module to monitor the output and to generate a second examining signal, and for comparing

the first examining signal with the second examining signal so as to determine if the monitor circuit is functioning normally.

- [c7] 7.The monitor circuit of claim 6, wherein the input signal is a temperature signal, and the first detection module comprises:
  - a transducer for detecting the temperature signal and for transforming the temperature signal into an analog voltage signal; and
  - an analog to digital converter (ADC) for transforming the analog voltage signal into the first examining signal.
- [c8] 8.The monitor circuit of claim 6, wherein the input signal is the fan speed signal, the first detection module is a tachometer for detecting the fan speed signal and for transforming the fan speed signal into the first examining signal, and the second detection module is a general purpose input/output module (GPIO) for generating the fan speed signal according to the first examining signal.
- [c9] 9.The monitor circuit of claim 6 further comprising a multiplexer, the output signal outputted from the second detection module being inputted to the multiplexer.
- [c10] 10.A computer system comprising:
  - a specific component; and

a monitor circuit for monitoring the operation of the specific component, the monitor circuit comprising:  
a first detection module for examining an input signal generated by the specific component and for generating a first examining signal according to the input signal;  
a second detection module electrically connected to the first detection module for generating an output signal according to the first examining signal; and  
a control unit electrically connected to the first and the second detection modules selectively for controlling the second detection module to generate the output signal according to the first examining signal, for controlling the first detection module to monitor the output and to generate a second examining signal, or for comparing the first examining signal with the second examining signal so as to determine if the monitor circuit is functioning normally.

- [c11] 11. The computer system of claim 10, wherein the input signal generated by the specific component is a temperature signal, and the first detection module comprises:  
a transducer for detecting the temperature signal and for transforming the temperature signal into an analog voltage signal; and  
an ADC for transforming the analog voltage signal into the first examining signal.

- [c12] 12.The computer system of claim 10, wherein the specific component is a central processing unit (CPU).
- [c13] 13.The computer system of claim 10, wherein the input signal generated by the specific component is the fan speed signal, the first detection module is a tachometer for examining the fan speed signal and for transforming the fan speed signal into the first examining signal, and the second detection module is a general purpose input/output module (GPIO) for generating the fan speed signal according to the first examining signal.
- [c14] 14.The computer system of claim 10, wherein the specific component is a fan.
- [c15] 15.The computer system of claim 10 further comprising a multiplexer, the output signal outputted from the second detection module being inputted to the multiplexer.